

Title (en)

ACIDIC HYBRID MONOMERS AND DENTAL MATERIALS BASED THEREON

Title (de)

SAURE HYBRIDMONOMERE UND DARAUF BASIERENDE DENTALMATERIALIEN

Title (fr)

MONOMÈRES HYBRIDES ACIDES ET MATÉRIAUX DENTAIRES BASÉS SUR CEUX-CI

Publication

EP 3225228 A1 20171004 (EN)

Application

EP 16163455 A 20160331

Priority

EP 16163455 A 20160331

Abstract (en)

Acidic monomer according to Formula I: in which A is a linear or branched aliphatic C 1 -C 18 -hydrocarbon group, which can be interrupted by one or more -O-, -S-, -COO-, -O-CO-NH-, -HN-CO-NH- or -CO-NR 1 -; R 1 is H or a C 1 -C 6 alkyl group; X is absent or is a linear or branched aliphatic C 1 -C 10 hydrocarbon group, which can be interrupted by one or more -O-, -S-, -COO-, -O-CO-NH-, -HN-CO-NH- or -CO-NR 2 -; R 2 is H or a C 1 -C 6 alkyl group; PG is a radically polymerizable group, preferably vinyl, allyl, CH 2 =CR 3 -CO-Y- or R 4 O-CO-C(=CH 2)-CH 2 -Y-; Y = O or NR 5 or is absent; R 3 is H or CH 3 ; R 4 is H or a C 1 -C 7 alkyl group; R 5 is H or a C 1 -C 7 alkyl group; n is 1, 2, 3 or 4; m = 1 or 2; p = 1, 2 or 3; and q = 1, 2 or 3. The monomers are particularly suitable as components of dental material.

IPC 8 full level

A61K 6/083 (2006.01); **A61K 6/891** (2020.01); **C07F 9/38** (2006.01)

CPC (source: CN EP US)

A61K 6/30 (2020.01 - CN EP US); **A61K 6/62** (2020.01 - EP US); **A61K 6/887** (2020.01 - EP US); **A61K 6/891** (2020.01 - EP US); **C07F 9/091** (2013.01 - CN); **C07F 9/3808** (2013.01 - EP US); **C07F 9/3826** (2013.01 - US)

C-Set (source: CN EP US)

CN

A61K 6/30 + C08L 33/14

EP US

A61K 6/887 + C08L 33/14

Citation (applicant)

- EP 1057468 A1 20001206 - KURARAY CO [JP]
- EP 1374829 A1 20040102 -IVOCLAR VIVADENT AG [LI]
- EP 1169996 A1 20020109 - MUEHLBAUER ERNST KG [DE]
- WO 0202057 A1 20020110 - MUEHLBAUER ERNST GMBH & CO KG [DE], et al
- EP 2816049 A1 20141224 -IVOCLAR VIVADENT AG [LI]
- WO 2004060327 A1 20040722 - 3M INNOVATIVE PROPERTIES CO [US]
- EP 2755624 A1 20140723 -IVOCLAR VIVADENT AG [LI]
- EP 2823801 A1 20150114 -IVOCLAR VIVADENT AG [LI]
- JP 2012006880 A 20120112 - SHOFU INC, et al
- US 2010076157 A1 20100325 - SEKIGUCHI TAKAHIRO [JP], et al
- MOAD, G.; RIZZARDO, E.; THANG, S. H., POLYMER, vol. 49, 2008, pages 1079 - 1131
- JAKUBOWSKI, W.; MATYJASZEWSKI, K., ANGEW. CHEM., vol. 118, 2006, pages 4594 - 4598
- KAMIGAITO, M.; ABDO, T.; SAWAMOTO, M., CHEM. REV., vol. 101, 2001, pages 3689 - 3745
- CATEL, Y. ET AL., EUR. POLYM. J., vol. 48, 2012, pages 318 - 330

Citation (search report)

- [A] US 2014296364 A1 20141002 - MOSZNER NORBERT [LI], et al & EP 2755624 A1 20140723 -IVOCLAR VIVADENT AG [LI]
- [AD] EP 1169996 A1 20020109 - MUEHLBAUER ERNST KG [DE]
- [A] JP 2015155396 A 20150827 - KURARAY NORITAKE DENTAL INC
- [AD] US 2010076157 A1 20100325 - SEKIGUCHI TAKAHIRO [JP], et al
- [A] EP 2289900 A1 20110302 - UNIV BERLIN HUMBOLDT [DE], et al

Cited by

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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DOCDB simple family (application)

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